

IN THE SPECIFICATION

Please replace ¶ 35 of the application with the following amended paragraph:

[0035] Referring to FIG. 2, a first embodiment of the probe 10 includes a body 50 having a space into which an object 62, for example, a finger, is inserted, a light source unit 58, and a photodetector unit 60. The body 50 consists of parallel upper and lower horizontal portions and a vertical portion connecting the upper and lower horizontal portions. The light source unit 58, which includes a light source, such as a light emitting diode (LED), for emitting measurement light near the cuticle of the finger, is positioned at a predetermined location on the upper horizontal portion of the body 50. ~~The light source of the~~ light source unit 58 may protrude from the upper horizontal portion of the body toward the photodetector unit 60. It is preferable that the light source unit 58 protrudes to such a degree that a subject becomes aware that his/her fingernail has contacted the light source unit 58 when the object 62, i.e., the finger, is inserted into the probe 10, i.e., between the upper and lower horizontal portions of the body 50. The photodetector unit 60 is positioned at a predetermined location on the lower horizontal portion of the body 50 facing the light source unit 58. The photodetector unit 60 detects light emitted from the light source unit 58 and transmitted through the object 62. The photodetector unit 60 includes a photoelectrical converter which converts the light detected by the photodetector unit 60 into an electrical signal. It is preferable that the photodetector unit 60 and the light source unit 58 are arranged in the same optical axis, i.e., they are coaxially arranged. For example, the photodetector unit 60 and the light source unit 58 may be arranged on a vertical axis, i.e., with respect to the upper and lower horizontal portions of the body 50.

Please replace ¶ 36 of the original application with the following amended paragraph:

[0036] In order to detect a PPG wave containing minimal motion noise and external noise, it is preferable to minimize a distance between the light source unit 58 and the photodetector unit 60 so that the photodetector unit 60 is able to detect a PPG wave having a maximum alternating current (AC) amplitude. To this end, a predetermined amount of pressure, which is insufficient to cause the subject to experience any pain, may be applied to the fingernail of the subject after the fingernail has contacted the protruding ~~light source of the~~ light source unit 58, e.g., the light source, to reduce the distance between the light source unit 58 and the photodetector unit 60. For this purpose, a pressure-application unit 53 for applying a predetermined amount of pressure to a given portion of the object 62, via the light source unit 58, is positioned above the light source unit 58. In addition, a heat dissipating plate 56, which externally dissipates heat generated by the light source unit 58, is positioned between the pressure application unit 53 and the light source unit 58